A METHOD AND A SYSTEM FOR AUTOMATED BOOK-KEEPING

Field of the invention

The present invention relates to a method and a
5   system for at least partly automated book keeping through
a communication network such as the Internet.

Background of the invention

Bookkeeping and accounting is normally a tedious and
10 time-consuming work, whereas all the data has to be
entered correctly into the bookkeeping database.
Especially for smaller companies, this work is also
normally done by people not specialised in this type of
tasks, which raise a need for further education etc.
15 Further, there is always a risk of incorrectness, such as
erroneous data entries, miscalculations etc. This in turn
makes the audit process more difficult and expensive.

It is therefore a need for an easier and more
convenient way of handling bookkeeping and accounting,
20 and preferably in an automatic or semi-automatic manner.

Summary of the invention

It is therefore an object of the present invention
to provide a method and a system for accounting which
25 alleviates at least some of the above-mentioned problems.

This object is achieved with a method and a system
according to the appended claims.

According to the invention a method for at least
partly automated book keeping, comprises:
30   providing a server with a banking service
application and an account service application, said
server being accessible to at least one client through an
wide area network such as the Internet, wherein said
account service application is connected to a book-
35 keeping database,

receiving to said server data representing instructions for at least one transaction,

using said data in the banking service application for conducting the transaction,

5   using at least part of said data as accounting information in the account service application for updating said book-keeping database.

With banking service application should in this context be understood any kind of application for
10 managing and controlling bank services such as payments, withdrawals, money transfers etc.

With transactions should in the context of this application be understood events related to a client's bank account.

15   With the inventive method, a vast reduction of the accounting workload is possible, since the data that is entered to the banking service application, is at least to a part reused for the accounting. This significantly lowers administration costs.

20   Further, the inventive method results in fewer errors in the accounting, since fewer data entries are required. Further, the bookkeeping database and the bank account balance are at least to a part automatically synchronised, since the same data are used, and the
25 accounting is always in line with the bank account and sales/purchase ledgers. This makes the audit process easier and less costly.

For many companies, a large share of the transactions is directed to a limited number of
30 suppliers, contractors and the like. In such a case, most transactions could be auto-booked with the inventive method, making the bookkeeping close to automatic.

Still further, the provision of the account service application in a central server makes it possible to use
35 the same application for several clients, where each user only has access to his own book-keeping database. This facilitates up dating and maintenance of the account

service application. Further, it makes it possible for
several clients to access the same bookkeeping database.
This is useful when several parties have an interest in
the bookkeeping, such as parent companies and

5 subsidiaries sharing the accounting services. It is
further useful for external parties needing access to the
bookkeeping, such as owners, creditors, auditors,
accountants etc. It also becomes easier to outsource
bookkeeping services.

10 By the inventive method, the bookkeeping also
becomes simpler, since it becomes more natural and easy
to understand. By the inventive method, simple
transaction data could be entered, and at the same time a
full double-entry accounting is produced in the

15 background.

Preferably, the received transaction data is
complemented with further account data, such as account
identification and/or value added tax related to the
transaction, connected to the transaction instruction

20 data, in order to make the entry into the book-keeping
database complete. Hereby, no subsequent completion of
the bookkeeping is required.

Preferably, a network accessible document, such as a
hypertext document, is transmitting in response to a

25 request transmitted by the client to said server, said
document comprising entering fields for formalised input
of information of a user on the client side. Hereby, the
input of the data becomes self-instructive for the user
on the client side, and thus facilitates the process even

30 further. The document could preferably be readable by a
browser on the client.

On the Internet, hypertext documents (e.g. HTML
documents) are linked to each other, constituting a
complex structure, referred to as the World Wide Web

35 (WWW). One document is called a WWW-page, a group of
related documents is be called a WWW-site. To access the
WWW-pages and sites, clients connected to the Internet

are equipped with a hypertext interface, called a browser. Preferably, the server is a such WWW-page or WWW-site, whereby the Internet client is connected to the Internet and is adapted to receive the hypertext

5 document.

Still further, it is preferred that the inventive method comprises searching of the book-keeping database for previously entered accounting data records similar to the received data regarding at least one predetermined

10 parameter, and if such similar accounting data items are found, suggest additional accounting data to be stored in the book-keeping database in connection with the newly received accounting information in accordance with information in the found accounting data items.

15 Hereby, intelligence is built into the system, and intelligent suggestions based on previous entries are suggested to the client. This facilitates the data entry and the bookkeeping even further, and the usefulness of this feature increases over the time. The predetermined

20 parameter could e.g. be the identity of the payment receiver, whereby the same additional accounting entries could be suggested as the last time the transaction was related to this receiver.

The invention also relates to a corresponding system

25 for carrying out the above discussed method.

Brief description of the drawings

For exemplifying purposes, the invention will be described in closer detail in the following with

30 reference to embodiments thereof illustrated in the attached drawings, wherein:

Fig 1 represents an example of an environment in which the method according to the invention is applicable.

35 Fig 2 is a schematic block diagram representing an embodiment of the inventive method.

Fig 3 is an example of a formalised network accessible document user interface to be used for entry of data on the client side.

5 ## Description of preferred embodiments

Further scope of the applicability of the present invention will become apparent from the detailed description given hereinafter. However, it should be understood that the detailed description and specific
10 examples, while indicating preferred embodiments of the invention, are given by way of illustration only, since various changes and modifications within the spirit and scope of the invention will become apparent to those skilled in the art from this detailed description.
15 Fig 1 shows a preferred environment in which the method according to the present invention is applicable. In fig 1, one or several clients 1 are connectable to a remote server 2 in a wide area network over a transmission line 3, using for example TCP/IP. The server
20 2 preferably provides the client with network accessible documents upon request. In the illustrated example, the client is connectable to the remote server 2 via the Internet and the World Wide Web (WWW) 4 and the network accessible documents are dynamic hypertext documents,
25 stored on the remote server 2. When a user connects the client 1 to the Internet, an Internet session is commenced, enabling the user to access documents from the server 2.

The client could for example be a conventional
30 personal computer with a network connection. Further, it is preferably provided with means 10 for displaying hypertext documents, hereafter called a browser 10. The browser acts as an interface between the user and the WWW 4.
35 The server is preferably a modification of a conventional server for providing bank services over the Internet. To this end the server comprises a banking

service application 20, which preferably is connected to
a banking database 5. The banking service application
could preferably provide usual banking services such as
payments, money transfers etc. Such banking service
5   applications are previously known, and are currently
frequently employed.

According to the invention, the server further
comprises a accounting service application 21, being
connected and having access to a bookkeeping database.
10 This bookkeeping application and bookkeeping database
preferably provides the same functionality as
conventional bookkeeping applications, and is further
provided with a connection and synchronisation with the
banking service application.

15   The function of the above described system and the
method for at least partly automated book keeping
according to the invention will now be discussed with
reference to fig 2.

When the user sends a request to the server, e.g. by
20 clicking on a hypertext link in a hypertext document,
previously downloaded to the client, a request
transmission S1 is made from the client to the remote
server 2 providing the requested document, S2. Normally
it is the browser 10 that executes this request
25 transmission S1, hereafter referred to as a "request".

Data is then entered into the hypertext document by
the user, S3, or by other means, and is then transferred
to the server 2. The data comprises data representing
instructions for at least one transaction, such as a
30 payment, in a format applicable for use in the banking
service application for conducting the transaction.

Preferably, the hypertext document comprises
entering fields for formalised input of information of a
user on the client side, as is discussed in more detail
35 below.

In addition to the transaction data, the data
preferably comprises additional thereto related

accounting data, connected to the transaction instruction data. Such complementary account data could comprise account identification to be used in the bookkeeping, information of value-added tax related to the

5   transaction, etc. The additional information could preferably be entered in entering fields in the same hypertext document used for entering the transaction data.

Preferably, the server performs the additional step

10 of searching the book-keeping database for previously entered accounting data items similar to the received data regarding at least one predetermined parameter, S4. If such similar accounting data items are found, step S5, it suggest additional accounting data to be stored in the

15 book-keeping database in connection with the newly received accounting information in accordance with information in the found accounting data items, step S6. The parameter to search for could e.g. be the identity of the payment receiver. Hereby, similar information need

20 not be entered over and over again, but the system has an inherent intelligence and learning capacity.

Thereafter, the transaction data is used in the banking service application 20 for performing the transaction, step 7. Further, at least part of the

25 transaction data together with the complementary accounting data is used by the accounting service application for entry into the bookkeeping database, step S8 and S9.

It should however be appreciated by those versed in

30 the art, that the steps of the method discussed above may be performed in a different order, and some of the steps may even be omitted.

The transmission of information between the client and the server is preferably encoded by encoding means in

35 a suitable way, enabling only the remote servers that have access to decoding means to have access to the information, and enabling only authorised users to have

access to the banking and bookkeeping. Several methods for such secure transmission of information through networks and authorisation are known in the art.

5   With reference to fig 3, an embodiment of a hypertext document comprising entering fields for formalised input of information of a user on the client side comprises a table interface. The interface comprises a number of rows, each transaction being assigned one row. Further, the rows are preferably divided in at least

10   two parts, one part DT comprising due transactions, and one part FT comprising future transactions. Which future and historic transactions to be shown could be determined according to standard or default settings, or be determined by the user. For example, the past

15   transactions in a specific time period, such as the last month, could be displayed. However, it is also possible to display all past transactions where some account information is still missing and/or all transactions not "locked", i.e. still changeable, in the bookkeeping

20   database.

     The rows are preferably divided in a number of columns. A first category BC of the columns relates to the data coming from the banking service application. This category comprises columns relating to one or

25   several of the following: transaction date; identity of the payer/payee; identity of the account to which the payment is due; and the amount and a text string attached to the transaction. However, other columns within this category are possible as well.

30   A second category AC of the columns relates to complementary data to be used by the accounting service application. This category comprises columns relating to one or several of the following: account date; account identification to be used in the bookkeeping; amount of

35   the transaction related to value-added tax; balance on the current account; and amount of the transaction related to freight or transportation. However, other

columns within this category are possible as well. Still further, a column is preferably provided for locking the transaction data in the bookkeeping, i.e. making the corresponding bookkeeping record impossible to cancel or manipulate.

Entry of new data into the document could either be made by making a new row for entry of a new transaction or by entry of complementary data into one of the columns for an already existing transaction. New transactions could be entered manually or automatically by means of e-billing or other systems for electronic invoicing and billing.

For the entry of the complementary accounting data in the columns AC, the bookkeeping database is preferably searched for similar earlier entries, where after intelligent suggestions are made for simplification of the data entry. Preferably, the bookkeeping database are searched for earlier entries having at least one of the parameters defined in the data columns BC relating to the banking service. Which of the columns to use for the matching with the previously entered records in the bookkeeping database could be decided by the user, but is preferably determined by a default setting. Typically, the identity of the payer/payee and/or the account identity are used. The suggestions could be made by automatic entry of the suggested data, preferably in a marked manner such as in a different colour. Alternatively or as a complement, possible alternatives could be presented to the user in a list, in which the desired alternative could be marked. Preferably, this list is hidden and accessible by clicking on a button or the like. Such a list is especially useful in cases where several alternative suggestions are possible.

The transactions typically relate to payment of received invoices. However, in case the provider of the service also offers handling of outgoing invoices and

outstanding debts, sales ledgers etc, such transactions may be entered in a similar way.

The banking service application and/or the accounting service application may further offer
5   additional interfaces. Hereby, additional services may be provided. Especially, the accounting service application may offer an interface for accessing the bookkeeping data in a more conventional fashion.

Further, it is preferably possible to download a
10   copy of the bookkeeping database to a client for revision, audits, follow-ups, etc.

With the invention an automatic synchronisation between the bookkeeping data and the bank account balance is achieved, since the same basic data are used. Further,
15   the bookkeeping is made easier and more efficient.

The invention has now been described by way of example. However, several alternative embodiments are feasible. E.g. the invention may be used over other wide area networks than the Internet. Further, different ways
20   of entering data may be used. Such closely related alternative embodiments must be considered to be within the scope of the application as defined by the attached claims.